REMARKS

At the outset, the Examiner is thanked for the thorough review and consideration of the subject application. The final Office Action of December 4, 2002 has been received and contents carefully reviewed.

Claims 1-20 are pending and claims 6-14 are withdrawn from consideration. Reexamination and reconsideration are respectfully requested.

The Examiner rejected claims 1-5 and 15-20 under 35 USC § 103(a) as being unpatentable over Applicant's Related Art Figures 1, 2, and 4 (AF) in view of Yamazaki et al. (US Patent No. 6,261,881). Applicants respectfully traverse this rejection.

Claim 1 is allowable at least for the reason that claim 1 recites a combination of elements including forming a silicon layer on the organic insulating layer in the equipment without breaking the vacuum.

Claim 15 is allowable at least for the reason that claim 15 recites a combination of elements including transferring the substrate having the organic layer from the first chamber to a second chamber without exposing the substrate having the organic layer to oxygen atmosphere during transfer; forming an active layer on the organic layer in the second chamber.

Claim 18 is allowable at least for the reason that claim 18 recites a combination of elements including transferring the first substrate having the organic layer from the first chamber to a second chamber without exposing the first substrate having the organic layer to oxygen atmosphere during transfer; forming an active layer on the organic layer in the second chamber.

None of the cited references, singly or in combination, teaches or suggests at least these features.

In the Office Action, the Examiner stated that AF fail to teach transferring the first substrate having the organic layer from a first chamber to a second chamber without exposing

the first substrate having the organic layer to oxygen atmosphere during transfer. The Examiner cites Yamazaki et al. in an attempt to cure the deficiencies of AF.

The first embodiment of Yamazaki et al. is described as follows:

In column 9, lines 28-37: "The chamber 14 is a first chamber for forming the gate insulating film (silicon oxide nitride film) 103. The chamber 15 is a second chamber for forming the semiconductor film (amorphous silicon film) 104. The chamber 16 is a third chamber for forming the insulating film (silicon oxide nitride film) 105. Reference numeral 11 denotes a common chamber for a sample, which is arranged in common to the respective chambers."

In column 9, line 65 to column 10, line 11: "After completion of film formation of the gate insulating film, the substrate 10 to be processed is pulled back by the robot arm 31 to the common chamber and is transferred to the second chamber 15. In the second chamber, a film formation process is performed at a temperature of 150 to 300.degree. C., as in the first chamber, to obtain the initial semiconductor film 104."

In column 10, lines 24-39: "After completion of film formation of the initial semiconductor film, the substrate 10 to be processed is pulled back by the robot arm 31 to the common chamber and is transferred to the third chamber 16. In the third chamber, a film formation process is performed at a temperature of 150 to 300.degree. C., as in the first chamber, to obtain the insulating film 105."

In column 10, lines 43-49: "As is described, in this embodiment, each layer is formed, with the use of the apparatus shown in FIG. 13, in a chamber different from ones where rest of the layers are formed so that contamination (inhibition of crystallization mainly by oxygen) that takes place upon film formation of the insulating film is prevented."

The third embodiment of Yamazaki et al. is described as follows:

In column 15, lines 10-43: "In this embodiment, a plastic substrate is formed as a substrate 500, a silicon oxide nitride (expressed as SiO_xN_y) film is formed as a base film 501 and a tantalum film is formed as a gate wiring 502. Next, a BCB (benzocyclobutene) film with a thickness of 100 nm to 1 μm (preferably 500 to 800 nm) is formed as the first insulating film 503. At this step, the film thickness needs to be thick enough to completely flatten the level difference due to the gate wiring 502. Having a great effect in flattening, a BCB film of not so thick a film thickness may sufficiently flatten the difference. After formation of the first insulating film 503, a second insulating film (silicon nitride oxide film) 504, an initial semiconductor film

> (microcrystalline silicon film) and an insulating film (silicon nitride oxide film) for serving as a protective film 509 are sequentially formed and layered without exposing them to the air... This embodiment prepares a chamber dedicated for formation of the second insulating film, a chamber dedicated for formation of the initial semiconductor film and a chamber dedicated for formation of the protective film to serially form those films by transferring the substrate from one chamber to another while keeping highly vacuumed state. The insulating films and the semiconductor film thus serially formed are all flat as they are formed on the flat surface."

These portions of Yamazaki et al. appear to describe features recited in claims 7, 8, 14, 15, 22, 23, 30, 31, 38, 39, 46, and 47 of the patent "wherein said gate insulating film, said initial semiconductor film and said protective film are formed respectively using chambers different from one another" and "wherein said gate insulating film and said protective film are formed using a first chamber, and said initial semiconductor film is formed using a second chamber". Nowhere does Yamazaki et al. teach or suggest forming a silicon layer on the organic layer without breaking the vacuum as in claim 1; and transferring the organic layer from a first chamber to a second chamber and forming an active layer on the organic layer in the second chamber without exposing the substrate having the organic layer to oxygen atmosphere during transfer in claims 15 and 18 of the present invention.

In Yamazaki et al., the gate insulating film is formed in a chamber different from the chambers of the initial semiconductor film and the protective film; or the gate insulating film and the protective film are formed using a first chamber and the initial semiconductor film is formed using a second chamber. Applicants submit that the combination of AF and Yamazaki et al. teach or suggest a different method of making a liquid crystal display than the method of the present invention.

Applicants respectfully submit that the Examiner has failed to establish a *prima facie* case of obviousness. Accordingly, Applicants respectfully request that the rejection under 35 USC § 103 be withdrawn.

Moreover, claims 2-5, 16, 17, 19, and 20 are allowable by virtue of their dependence on claims 1, 15, and 18, which are believed to be allowable.

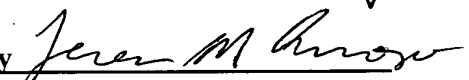
In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejection of the claims and to pass this application to issue.

Should the Examiner deem that a telephone conference would further the prosecution of this application; the Examiner is invited to call the undersigned attorney at (202) 496-7371.

If these papers are not considered timely filed by the Patent and Trademark Office, then a petition is hereby made under 37 C.F.R. §1.136. Please credit any overpayment to deposit Account No. 50-0911.

Date: March 4, 2003

Respectfully submitted,

By 

Teresa M. Arroyo
Registration No.: 50,015
MCKENNA LONG & ALDRIDGE LLP
1900 K Street, N.W.
Washington, DC 20006
(202) 496-7500
Attorneys for Applicant